

REMARKS

Applicants are amending claims 4, 22, 40, and 41 to correct a minor typographical error. Specifically, Applicants are amending claims 4, 22, 40, and 41 to replace the word: “dispenser” with the word: “disposer.” No new matter is added by the foregoing amendments, and these amendments are fully supported by the specification. Applicants respectfully request that the Examiner reconsider the above-captioned patent application in view of the following remarks.

In the Office Action mailed January 25, 2005, the Examiner rejected claims 1-5, 9, 10, 12, 22, 23, 40, and 41 under 35 U.S.C. § 112, ¶1, as allegedly containing subject matter that was not described in the specification in such a way as to enable those of ordinary skill in the art at the time of the invention to make and/or use the claimed invention. The Examiner also rejected claims 1-3, 9, 10, and 12 under 35 U.S.C. § 102(e), as allegedly being anticipated by U.S. Patent No. 6,727,818 to Wildman *et al.* (“Wildman”). Moreover, the Examiner rejected claims 4, 5, 22, and 23 under 35 U.S.C. § 103(a), as allegedly being rendered obvious by Wildman in view of U.S. Patent No. 5,870,015 to Hinkel. In addition, the Examiner rejected claims 40 and 41 under 35 U.S.C. § 103(a), as allegedly being rendered obvious by Wildman in view of U.S. Patent No. 5,857,228 to Waltenberger. Applicants respectfully traverse these rejections, as follows.

1. 35 U.S.C. § 112, ¶1

The Examiner rejected claims 1-5, 9, 10, 12, 22, 23, 40, and 41 under 35 U.S.C. § 112, ¶1, as allegedly containing subject matter that was not described in the

specification in such a way as to enable those of ordinary skill in the art at the time of the invention to make and/or use the claimed invention. Specifically, the Examiner asserts that the phrases: “any person” and “independent of whether the any person includes a sensor” include new matter because these phrases were not described in the specification. See, e.g., Office Action, Page 2, Lines 14-17. Applicants respectfully disagree.

Applicants' specification describes the use of various, exemplary sensors, e.g., a thermal detector, such as an infrared motion detector, which are known in the art and are configured to perform the function of detecting any person independent of whether the any person includes a sensor for communicating with the exemplary sensor. See, e.g., Appl'n, Page 8, Paragraph 0026. For example, an infrared motion detector is configured to detect a moving body, e.g., a moving person, located within a predetermined range of the infrared motion detector. As such, **an infrared motion detector is configured to detect “any person” that is located within a predetermined range of the infrared motion detector.** Moreover, because the infrared motion detector detects the movement of any moving body, the infrared motion detector detects the “any person” “independent of whether the any person includes a sensor for communicating” with the infrared motion detector.

Because Applicants' specification describes exemplary sensors that are configured to detect any person independent of whether the any person includes a sensor for communicating with the exemplary sensor, Applicants' respectfully submit that Applicants' specification, as filed, describes the claimed invention in such a way as to enable those of ordinary skill in the art at the time of the invention to make and/or use the

claimed invention. Therefore, Applicants' respectfully request that the Examiner withdraw the enablement rejection of claims 1-5, 9, 10, 12, 22, 23, 40, and 41.

2. **35 U.S.C. § 102(e)**

The Examiner rejected claims 1-3, 9, 10, and 12 as allegedly being anticipated by Wildman. Applicants respectfully disagree.

a. **Independent Claim 1**

Applicants independent claim 1 describes a method of improving hand hygiene compliance comprising the step of "determining whether **any** person entered a first area **independent of whether the any person includes a sensor.**" As such, in Applicants' invention as set forth in independent claim 1, the method detects **any** person who enters the first area. Moreover, this detection of the any person entering the first area is done **independent** of whether the any person includes a sensor, i.e., **the any person does not need to include/wear a sensor for the detection to occur.**

The Examiner asserts that Wildman describes "determining whether any person entered a first area independent of whether the any person includes a sensor." Office Action, Page 3, Lines 17 and 18. Specifically, the Examiner asserts that sensor 118 of Wildman determines whether any person entered a first area independent of whether the any person includes a sensor. See, e.g., *Id.* at Lines 18 and 19. For the foregoing reasons, Applicants respectfully disagree with the Examiner characterization of sensor 118 of Wildman.

Specifically, the system described in Wildman is a **badge-based system**, in which care givers wear a badge 112 which includes an IR transmitter for communicating with sensors 108 and/or sensors 118 positioned within a room, and an alert indicator 116 for reminding the caregiver to wash their hands and/or to indicate that a handwashing sequence has or has not occurred. Alert indicator 116 also may be positioned in the room. However, because Wildman uses a badge-based system, sensors 108 and 118 **are not configured to detect ANY person entering the area**, and instead, sensors 108 and 118 **merely are designed to communicate with the IR transmitter of badge 112.** As such, in contrast to the Examiner's assertions, sensor 118 of Wildman does **not** determine whether **any** person entered a first area **independent** of whether the **any person includes a sensor**, as set forth in Applicants' independent claim 1. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejection of independent claim 1.

Moreover, **if the Examiner renews this anticipation rejection of independent claim 1, Applicants respectfully request that the Examiner explain how it is possible for sensor 118 of Wildman to determine whether any person entered a first area independent of whether the any person includes a sensor when sensor 118 can only detect persons that include/wear badge 112.**

In addition, Applicants submit that **there is no motivation to modify the system described in Wildman to remove badges 112 from the system and to replace sensors 108 and 118 with sensors that determine whether any person entered the area.** Specifically, the system described in Wildman is designed to generate a **caregiver specific** compliance report so that the entity operating the system can determine the

compliance rate of each individual caregiver, and badge 112 is used to identify each individual caregiver. See, e.g., Wildman, Column 12, Lines 65-67; and Column 13, Lines 1-4. However, the sensors used in Applicants' claimed system and method merely indicate that someone entered the area, but does not identify who entered the area. For example, Applicants' claimed invention may be used to generate a report indicating that during the monitoring period, "X" percentage of people who entered a particular area washed their hands before leaving the particular area or within a predetermined amount of time after leaving the particular area. However, Applicants' claimed invention is not capable of generating caregiver specific compliance reports.

b. Independent Claim 9

Applicants independent claim 9 describes a system for improving hand hygiene compliance, comprising "means for detecting, wherein the means for detecting is configured to detect each of: whether any person entered a first area **independent of whether the any person includes means for communicating with the means for detecting**; and whether the any person left the first area and entered a second area **independent of whether the any person includes means for communicating with the means for detecting.**"

As set forth above with respect to independent claim 1, Wildman merely describes a badge-based system in which sensors 108 and 118 detect persons that include badge 112 for communicating with sensors 108 and 118. However, because Wildman uses a badge-based system, sensors 108 and 118 are not configured to detect ANY person entering the area, and instead, sensors 108 and 118 merely are designed to

communicate with the IR transmitter of badge 112. As such, in contrast to the Examiner's assertions, sensor 118 of Wildman does not detect each of "whether any person entered a first area independent of whether the any person includes means for communicating with the means for detecting; and whether the any person left the first area and entered a second area independent of whether the any person includes means for communicating with the means for detecting," as set forth in independent claim 9. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejection of independent claim 9.

Moreover, as set forth above with respect to independent claim 1, there is no motivation to modify the system described in Wildman to remove badges 112 from the system and to replace sensors 108 and 118 with sensors which detect any person entering the area. Specifically, the system described in Wildman is designed to generate a **caregiver specific** compliance report so that the entity operating the system can determine the compliance rate of each individual caregiver, and badge 112 is used to identify each individual caregiver. See, e.g., Wildman, Column 12, Lines 65-67; and Column 13, Lines 1-4.

c. Dependent Claims 2, 3, 10, and 12

Claims 2, 3, 10, and 12 dependent from allowable independent claims 1 and 9, respectively. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejection of claims 2, 3, 10, and 12.

3. **35 U.S.C. § 103(a)**

The Examiner rejected claims 4, 5, 22, and 23 under 35 U.S.C. § 103(a), as allegedly being rendered obvious by Wildman in view of Hinkel. The Examiner also rejected claims 40 and 41 under 35 U.S.C. § 103(a), as allegedly being rendered obvious by Wildman in view of Waltenberger.

a. **Independent Claims 4 and 22**

The Examiner rejected claims 4, 5, 22, and 23 under 35 U.S.C. § 103(a), as allegedly being rendered obvious by Wildman in view of Hinkel. In order for the Examiner to establish a prima facie case for obviousness, three (3) criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the primary reference as the Examiner proposes. Second, there must be a reasonable expectation of success in connection with the Examiner's proposed combination of the references. And third, the prior art references **must disclose or suggest all of the claim limitations**. MPEP 2143. Applicants respectfully submit that the Examiner fails to establish a prima facie case for obviousness with respect to independent claims 4 and 22 because the Examiner fails to establish that the combination of Wildman and Hinkel discloses or suggests each and every limitation of independent claims 4 and 22.

Applicants independent claim 4 describes a method for improving hand hygiene compliance, comprising the step of "if it is **determined** that the any person **did not wash their hands within the predetermined amount of time after flushing** the at least one of the restroom toilet and the soil room waste disposer, generating at least one of a

warning signal and a reminder and sending this information to the central database.” Similarly, Applicants independent claim 22 describes a system for improving hygiene compliance, comprising “means for generating at least one of a warning signal and a reminder when the any person flushes the toilet and **does not wash their hands within the predetermined amount of time after flushing** the at least one of the restroom toilet and the soil room waste disposer.” Thus, in Applicants’ claimed invention as set forth in independent claims 4 and 22, first it is determined whether the any person washed their hands within the predetermined amount of time after flushing, and if they did not wash their hands within the predetermined amount of time, the warning signal and/or the reminder signal is generated.

The Examiner acknowledges that Wildman does not disclose or suggest the above-described limitations of independent claims 4 and 22, and appears to acknowledge that the determination of handwashing in Wildman is completely unrelated to any flushing. See, e.g., Office Action, Page 5, Lines 21-23. However, the Examiner asserts that Hinkel supplies the elements of Applicants’ independent claims 4 and 22 that are missing from Wildman. Specifically, the Examiner asserts that in Hinkel, “the predetermined amount of time is inherently included after flushing the toilet.” *Id.* at Page 6, Lines 8-10. For the foregoing reasons, Applicants respectfully disagree with the Examiner’s assertions that Hinkel supplies the limitations of Applicants’ independent claims 4 and 22 that are missing from Wildman.

Specifically, Hinkel merely discloses that toilet and hand washing instructions/reminders are activated “**upon movement** of a toilet flush handle.” Hinkel, Column 2, Lines 14-16. As such, Hinkel **automatically** generates a reminder signal

immediately after the person flushes the toilet. However, the generation of the reminder signal in Hinkel is **independent of whether the person actually washes their hands**, i.e., the reminder signal is generated **regardless** of whether the person actually washes their hands. Moreover, because Hinkel generates a reminder signal immediately after the person flushes the toilet, the person cannot have even had an opportunity to wash their hands before Hinkel generates the reminder signal, and as such, Hinkel clearly does not relate to determining whether the person washed their hands within a predetermined amount of time after flushing. In contrast, in Applicants' claimed invention as set forth in independent claims 4 and 22, first it is determined whether the any person washed their hands within the predetermined amount of time after flushing, and if they did not wash their hands within the predetermined amount of time, the warning signal and/or the reminder signal is generated.

In addition, because the generation of the reminder signal in Hinkel is independent of whether the person actually washes their hands, and is automatically generated after flushing, the combination of Wildman and Hinkel merely results in a system and method in which after flushing, a hand washing reminder automatically is generated, and **any determination of handwashing that is done in such a system or method is done independent of the amount of time that expires after flushing**. Therefore, Applicants respectfully request that the Examiner withdraw the obviousness rejection of claims 4 and 22.

b. Dependent Claims 5 and 23

Claims 5 and 23 depend from allowable independent claims 4 and 22, respectively. Therefore, Applicants respectfully request that the Examiner withdraw the obviousness rejection of claims 5 and 23.

c. Independent Claims 40 and 41

The Examiner rejected claims 40 and 41 under 35 U.S.C. § 103(a), as allegedly being rendered obvious by Wildman in view of Waltenberger. In order for the Examiner to establish a prima facie case for obviousness, three (3) criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the primary reference as the Examiner proposes. Second, there must be a reasonable expectation of success in connection with the Examiner's proposed combination of the references. And third, the prior art references **must disclose or suggest all of the claim limitations**. MPEP 2143. Applicants respectfully submit that the Examiner fails to establish a prima facie case for obviousness with respect to independent claims 40 and 41 because the Examiner fails to establish that the combination of Wildman and Waltenberger discloses or suggests each and every limitation of independent claims 40 and 41.

Applicants' independent claim 40 describes a method for improving hand hygiene compliance, comprising the steps of "determining whether the any person flushed the at least one of the toilet and the waste disposer; [and] if the any person flushed the at least one of the toilet and the waste disposer, determining whether the any person washed

their hands before opening the door to leave the second area.” Similarly, Applicants’ independent claim 41 describes a system for improving hand hygiene compliance, comprising “means for determining whether the any person flushed the at least one of the toilet and the waste disposer; [and] means for determining whether the any person washed their hands before opening the door to leave the second area.”

The Examiner acknowledges that Wildman does not disclose or suggest the above-described limitations of independent claims 40 and 41. However, the Examiner asserts that Waltenberger discloses these limitations of independent claims 40 and 41 that are missing from Wildman. Specifically, referring to Column 6, Lines 38-55 of Waltenberger, the Examiner asserts that Waltenberger discloses “if the any person flushed the at least one of the toilet and waste disposer, determining whether the any person washed their hands before opening the door to leave the second area.” Applicants’ respectfully disagree with the Examiner characterization of Waltenberger.

Specifically, Column 6, Lines 38-55 of Waltenberger merely states:

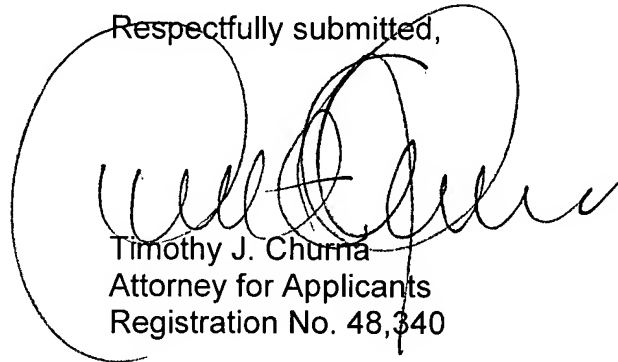
The toilet block 1 is expediently operated as a slot machine. Next to the entrance door 7 is provided a corresponding coin slot device 21, 21a with integrated coin tester and display device (see FIG. 6), which is automatically controlled by the control unit 13 in the technical room 4. After the insertion of an appropriate coin, the automatic entrance door 7 is released and automatically opened, so that the toilet and washroom 2 is available for use. After use the flushing of the WC 16 is triggered either by the user himself or, if this is forgotten, a forced flushing occurs after the vacation of the toilet and washroom 2. After the entrance door 7 has closed again, the cleaning operation is started. However this only occurs if the corresponding safety devices, such as e.g. light barriers or the like, announce a free toilet and washroom 2 to the control unit 13. The entrance door 7 is then locked and the announcement "cleaning operation" or the like appears on the display device 12 next to the entrance door 7.

Applicants respectfully submit that Waltenberger (and in particular the section of Waltenberger cited by the Examiner) does not even remotely mention determining whether the person washed their hands before opening door 7 to leave the area. Instead, Waltenberger merely describes a system for cleaning a toilet and washroom area after the person flushes the toilet and leaves the toilet and washroom area. However, this is unrelated to determining whether a person flushed a toilet, and after the person flushed the toilet, determining whether the person washed their hands before opening the door to leave the toilet and washroom area. As such, the combination of Wildman and Waltenberger does not result in Applicants' claimed method and system, as set forth in independent claims 40 and 41, respectively. Therefore, Applicants respectfully request that the Examiner withdraw the obviousness rejection of claims 40 and 41.

CONCLUSION

Applicants respectfully submit that the above-captioned patent application is in condition for allowance, and such action is earnestly solicited. If the Examiner believes that an in-person or telephonic interview with Applicants' representatives would expedite the prosecution of the above-captioned patent application, the Examiner is invited to contact the undersigned attorney of records. Applicants believe that no fees are due as a result of this response to the outstanding Office Action in the above-captioned patent application. Nevertheless, in the event of any variance between the fees determined by Applicants and those determined by the U.S. Patent and Trademark Office, please charge any such variance to the undersigned's Deposit Account No. 01-2300.

Respectfully submitted,

A large, stylized handwritten signature in black ink, appearing to read 'Timothy J. Churna', is written over the typed name and registration number.

Timothy J. Churna
Attorney for Applicants
Registration No. 48,340

Customer No. 004372

ARENT FOX, PLLC
1050 Connecticut Ave., N.W., Suite 400
Washington, D.C. 20036-5339
Telephone No. (202) 715-8434
Facsimile No. (202) 638-4810

CMM/TJC:klf